



## Board of State Examiners of Electricians Licensure Candidate Information

4/14/2004

### Introduction:

This Bulletin details the requirements as well as the process for achieving licensure. Candidates are eligible for the two-part examination when their application and supporting documentation are approved. In order to be approved for examination by the Board of State Examiners of Electricians as a Master or Journeyman Electrician, Systems Contractor or Systems Technician, candidates must have the required apprenticeship experience and education. The Board has contracted with PSI to process applications and to conduct the examinations. Hence there are many references to PSI in this Bulletin.

### Frequently Asked Questions and Answers:

1. Where are the examinations given? See Part I- (Page 1) Preparing for Examination.
2. Who is responsible for documenting my apprenticeship hours? Part II - (Page 5) Apprentice Work Experience.
3. What types of examinations are given? What will I be tested on? See Preparing for examination (Page 1) and Examinations (Page 5).
4. Are there special testing accommodations for candidates with disabilities? See Part II -(Page 3) Americans with Disabilities Act.
5. What is the examination process? What are the fees for the examinations? See Examination Process (Page 2) and Fees Part V - (Page 9).
6. What is the passing score for each part of the two-part examination? See Part V- (Page 3) Examinations.
7. What materials are allowed in the examinations? Part IV - (Page 3) Items allowed/ used as an aid during an examination.
8. Will I be penalized for tabbing, highlighting, underlining or handwritten notes in books? See Part IV- (Page 3) Items allowed/used as an aid during an examination.
9. When will I be notified that I have passed or failed an examination? See Part V - (Page 3) Scores.
10. How can I get help on

- **Reviewing Questions**-See Part I- (Page 4) Request for Review of Questions
- **Making an Appeal**- See Part I- (Page 4) Examination Appeal
- **Reviewing Scores**- See Part I- (Page 4) Review of Examination Score
- **Refunds and Penalties**- See Part IV- (page 8)

11. When am I considered licensed to work in the business of electrical and or security and fire alarms? You are considered licensed to install for hire when:

- a. You have received notice of a passing score on each part of your examination and;
- b. You have in your possession a printed, photo license issued from the Board or a temporary license.

12. Are there any additional requirements to install security alarm systems? **YES!** Anyone who installs Security Alarm systems is required to obtain a **Security Clearance Certificate** from the Department of Public Safety in addition to being licensed. Applications may be obtained by calling the Board of Electricians office or the Department of Public Safety:

**Board of State Examiners of Electricians**  
239 Causeway Street, Suite 500  
Boston, MA 02114  
(617) 727-9931

**Department of Public Safety**  
1 Ashburton Place, Room 1301  
Boston MA 02108  
(617) 727-3200

### Preparing for an Examination

#### Part I.

#### General:

The examinations are administered at the PSI examination centers listed below:

**Boston**  
Inner Tech Park, 56 Roland St., Suite 211  
Boston, MA 02129

*From the North: take McGrath Highway (MA-28) South. Exit onto Washington Street, Somerville. Make a left off exit ramp onto Washington Street. Make right on to Stark Street, 3rd light. There are signs for Inner Tech Park. Right onto Roland Street. Enter through North Lobby.*

*From South: take McGrath Highway (MA-28) North. Exit onto Washington Street, Somerville. Make a right off exit ramp to Washington Street. (same as above).*

Continued on next page



### Fall River

218 South Main St, Suite 105

Fall River, MA 02721

*From the North take Rte. 24 South to Rte. 79 S (to the end) and keep right. Take Broadway exit. Turn left at first (light) on Columbia St. Turn left at 2<sup>nd</sup> (light) to So. Main St. Site is 2 blocks down on the right. Park in the 3<sup>rd</sup> Street Parking Garage.*

*From the East 195 West. Take 138 S / Ma 79 S exit 5 toward N Tiverton RI (.3 miles). Follow Route 138 S toward N Tiverton RI (.1 miles). Merge right. Take Broadway Exit. Turn left at 1<sup>st</sup> light on Columbia St. Turn left at 2<sup>nd</sup> light to So Main St. Site is 2 blocks on the right.*

### Springfield

1111 Elm Street, Suite 32A

West Springfield, MA 01089

*Going East on Mass Pike (Rt. 90). Take Exit 4 - West Springfield/Holyoke. Turn right on West Springfield/Rt. 5 South. Continue on Rt. 5 approximately two miles. Turn right on Elm St. - immediately after Showcase Cinemas. Office is approximately 1/4 mile on the right.*

*Going West on Mass Pike (Rt. 90). Take Exit 4 - West Springfield/Holyoke. Follow as above.*

*Going South on Rt. 91. Take West Springfield/Route 5 Exit. Continue on Rt. 5 for approximately 1/2 mile. Turn right on Elm St. - immediately after Showcase Cinemas. Office is approximately 1/4 mile on the right.*

*Going North on Rt. 91. Take West Springfield/Route 5 South Exit. Continue on Rt. 5. Follow as above.*

On the day of the examination, you should arrive at least 30 minutes before your appointment. This extra time is for sign-in, identification, and familiarizing yourself with the examination process. If you arrive late, you will not be admitted to the examination site and you will forfeit your examination administration fee.

### Part II.

#### Type/Class of Licenses:

- Massachusetts requires all applicants to pass an examination for the following categories of licensure: Master Electrician (Class A), Journeyman electrician (Class B), Systems Contractor (Class C) or Systems Technician (Class D) license.

#### Taking Consecutive Examinations:

- As a matter of preference, you may choose to sit for both parts of an examination on the same day. Applicants who choose to take both parts will immediately continue onto the second part of the examination. Once you enter a second part of an exam you will not be able to return to the first. You must complete one part of the examination in order to proceed to the next part.

#### Separate Examination Dates:

- As a matter of preference, you may choose to sit for only one part of your examination and then return on another date to take the next part of your examination.

### Part III.

#### Re-examination:

- Applicants who have failed an examination or part thereof MUST wait 30-days from the last examination date to sit for re-examination.

Mail or call:

#### PSI Examination Services

3210 E Tropicana Ave Attn: MA EL

Las Vegas, NV 89121

(800) 733-9267 • Fax (702) 932-2666

[www.psiexams.com](http://www.psiexams.com)

NOTE 1. : See *Required Renewal of Application Forms Part V (Page 8)*.

### Part IV.

#### Identification of Candidates:

You must provide 2 forms of identification. One must be a VALID form of government issued identification (driver's license, state ID or passport), which bears your signature and has your photograph or a complete physical description. The other must have your signature and preprinted legal name. All identification must match the Examination Registration Form and your Registration Confirmation Notice.

*Note: If you cannot provide the required identification, you must call (800) 733-9267 at least 3 weeks prior to your scheduled appointment to arrange a way to meet this security requirement. Failure to provide all of the required identification at the time of the examination without notifying PSI is considered a missed appointment, and you will not be able to take the examination.*

## The Examination Process

### Part I.

#### Eligibility and Examination Registration:

- Eligibility for examination is to be determined by the Board of State Examiners and its' vendor, PSI.
- When your application has been approved, PSI will email or mail you an Examination Authorization Notice, along with information about scheduling your examination.

NOTE 1. Prior to taking examination: It is the applicant's responsibility to immediately notify PSI, in writing of any change in information on your previously submitted application.

- If your application is deemed incomplete or unqualified, PSI will return your original application, any additional documentation, examination fee and MA license fee to you for completion. Enclosed will be a notice explaining why your application could not be approved.



## Part II.

### Americans with Disabilities Act (ADA):

- If you require special accommodations, under the Americans with Disabilities Act (ADA), please contact PSI at (800)733-9267 or the Board office at (617)727-9931 to obtain an Accommodation Request Form. All examination centers are equipped to provide access in accordance with the Americans with Disabilities Act (ADA) of 1990, and every reasonable accommodation will be made in meeting a candidate's needs. Requests for any special accommodations should be made in writing, describing the specific accommodations that will be needed, and requests must include supporting documentation from a licensed professional. **All requests for special testing arrangements must be made when the candidate registers for the examination with PSI.**

## Part III.

### **Admission/ Security to the Examination Area:**

The following security procedures will apply during the examination:

- Cell phones, pagers, and guests are not allowed in the examination site. This policy is strictly enforced.
- No smoking, eating, or drinking will be allowed in the examination site.
- Copying or communicating examination content is a violation of PSI security policy and State Law. Either will result in the disqualification of examination results and may lead to legal action.
- Any individual papers that are not part of a paper-back, ring-binder, spiral binder or loose leaf binder type of book, or part of a multi-paged CMR, MGL, UL, or NFPA document as described in this section **MUST** be removed prior to entering the examination area. Failure to comply with this may result in disqualification and forfeiture of all fees.

**NOTE 1.** Please see the following section for a list of *"Items that may be used as an aid during an actual examination"*

**NOTE 2.** Items not on this list are not allowed in the examination area.

## Part IV.

### Items allowed/ used as an aid during an actual examination

- **Calculator-** only non-programmable, non-printing, silent, battery-operated, non-alphabet keys.
- **Code-Book-** The current, adopted edition of the National Electrical code-book whether paper-back, ring-binder, a spiral binder or loose leaf, tabbed or un-tabbed, that contains highlighted sections and or underlined sections or paragraphs of the original text of said book is allowed in the examination area for examination purposes.
- **Massachusetts State Amendment-** The current, adopted edition of the Massachusetts State Amendments whether a separate document or part of the National Electrical Code book, in or a paper-back book provided by PSI, tabbed or un-tabbed, that contains highlighted sections and or underlined sections or paragraphs of the original text of

said document is allowed in the examination area for examination purposes.

- **Massachusetts General Laws-** All Massachusetts General Laws applicable to examination questions whether a separate document or part of the National Electrical Code book, or in a paper-back book provided by PSI, tabbed or un-tabbed, that contains highlighted sections and or underlined sections or paragraphs of the original text of said document is allowed in the examination area for examination purposes.
- **Board Rules and Regulations-** A copy of the Boards Rules and Regulation (237CMR 11.00- 23.00) whether a separate document or in a paper-back book provided by PSI, tabbed or un-tabbed, that contains highlighted sections and or underlined sections or paragraphs of the original text of said document is allowed in the examination area for examination purposes.
- **National Fire Alarm Code-** A copy of the National Fire Alarm Code (NFPA-72) whether paper-back, ring-binder, a spiral binder or loose leaf, tabbed or un-tabbed, that contains highlighted sections and or underlined sections or paragraphs of the original text of said book is allowed in the examination area for examination purposes.
- **OSHA and Safety and Health Standards; Overtime Compensation Fair Labor Standards Law; Lien Law; Worker Compensation Law; State Unemployment Law; Employer's Tax Guide -** A copy of each of the aforementioned publications - whether in paper-back, ring-binder, spiral binder or loose leaf, tabbed or un-tabbed, provided by PSI; that contains highlighted sections and or underlined sections or paragraphs of the original text of said publication - is allowed in the examination area for examination purposes.
- **Formulas-** prior to examination - written on the blank pages of your codebook.
- **Written notes-** prior to examination Hand written notes in the margins of the aforementioned reference materials.
- **During the examination -** only writing on the scrap paper that is provided by PSI will be allowed during the exam.

## Part V.

### Scores:

Your scores will be based on the number of questions you answered correctly. A passing score is a MINIMUM of 70% on each part See Examinations (pages 5-8).

- At the end of the examination all candidates will receive a printed Score Report.
- Veterans as defined in clause forty-three of section seven of chapter four shall be granted a credit of five percent to each part of the examination. DD214 must be submitted with application.

### Score Report:

- If you did not pass the examination, a Score Report will indicate your overall score and the number of questions answered correctly on each major section of the examination. This information may help you prepare for reexamination.
- This detail is not shown on your Score Report if you received a passing score.
- If for some reason the Score Report can not be printed after you have completed your examination, PSI will mail such report within 10-days of your examination date.



## Reviews and Appeals

### Part I.

#### Review of Examination Score:

- An Examination Score report shall be given to candidates, on site, for no additional charge after completing their respective examination or part thereof. Your Examination Score report will state whether you have passed or failed and explain what part(s) of your examination you failed, showing your strengths and weaknesses in content areas. It will also inform you of your right to review the questions that you answered incorrectly on your examination. A request to review examination questions shall be made in writing to PSI **within 30-days from the date of examination.** See *Review of Question in the following section.*

**NOTE 1.** If you need an extra copy of your Examination Score Report - such a request must be made **within 30-days of the date of examination.** Failure to make such a request (documented) within the time allotted may jeopardize your right to review your examination score for a second time.

**Important:** If an appeal, review of questions or review of score results in a change of score from failing to passing, candidates will be required to update their application to show any changes in information in their initial application. See *Part V Required Renewal of Application Forms on page 8.*

#### Request for Review of Questions:

- Failing candidates will review their examination in a secure environment and may challenge any questions or answers that they feel should be eliminated, changed, or given credit.
- A Request for a Review of Questions shall be made to PSI within 30-days from your examination date or the date you received your score. Failure to make such a request within the time allotted may jeopardize your right to review the examination questions.
- Candidates may register for the examination review via Automated Telephone, Internet, Mail or Fax and Pay by Money Order, Cashier's Check, VISA or MasterCard. Personal or company checks are not accepted. The fee for this service is the same as the cost of reexamination. See Reexamination Fees on Page 9.
- During the review you will be presented with the questions you answered incorrectly and the correct answer to those questions. The purpose of the review is to allow you to self-research the question to determine why the answer you selected was incorrect. If you feel that there is an error in the question, you may comment about the question during the review by writing down comments on the Test Question Review sheet.
- All comments together with a copy of the challenged test questions will be submitted directly to PSI's test development staff for review. PSI will contact you within 20 business days if your status changed from fail to pass, and a new score report

will be issued. Most test questions are determined to be correct as presented on the examination, so do NOT wait for a response before preparing for and scheduling for re examination.

You are not permitted to take any notes outside of the review sessions. Please call (800) 733-9267 with any questions.

#### Examination Appeal:

- If after an exam review PSI maintained their failing score and you still disagree with their findings you may file an appeal before the Board. The appeal shall be made in writing to the Board of Electricians within 30-days of the date on your rejection notice from PSI. In your appeal you must state the items/questions that are to be reviewed. Failure to make such a request within the time allotted may jeopardize your right to an appeal.

Mail To: Board of State Examiners Examination Appeal

Attn: Executive Director

239 Causeway Street, suite 500

Boston, MA 02114

(617) 727-9931 • Fax - (617) 727-5012

### Part II.

#### Applications for Examination:

- Applications for examination may be requested from PSI. Such request may be made by phone, fax, mail (postal services). Additionally, all applications may be downloaded, e-mailed as an attachment and or printed from the Board's and PSI's web sites:

[www.mass.gov/reg/boards/el/forms.htm](http://www.mass.gov/reg/boards/el/forms.htm)

[www.psiexams.com](http://www.psiexams.com)

PSI Examination Services

3210 E Tropicana Ave

Las Vegas, NV 89121

(800) 733-9267 • Fax (702) 932-2666

#### Scheduling:

1. Once applications are approved, candidates are responsible for contacting PSI to schedule an appointment to take the examination. For the fast and convenient test scheduling, PSI recommends candidates schedule their exams online by accessing PSI's registration website at [www.psiexams.com](http://www.psiexams.com) 24 hours a day.
2. You may also schedule your examination touch- tone phone 24hours a day at (800) 733-9267. To schedule with a PSI registrar, call Monday through Friday, between 9:00 a.m. and 8:00 p.m., Eastern Time. If space is available in the examination site of your choice, you may schedule an examination 1 day prior to the examination date of your choice, up to 7:00pm ET. PSI will make every effort to schedule the examination site and time that is most convenient for you. Please be prepared to offer alternate examination appointment choices.

#### Apprentice Work Experience:

- Apprentice work experience is the actual hours worked under the direct supervision of a licensed person as covered in the Board's Rules and Regulations (237 CMR 12.00- 23.00). All Apprentices must have their employer complete a Board approved form herein referenced as an *"Employment Verification Form"*. All hours of experience shall be





documented on this form including overtime and signed by the responsible under pains and penalties of perjury.

- It is the apprentice's responsibility to contact his or her employer, present and past, to acquire the above information. If an employer fails to complete an "Employment Verification form" for an apprentice, the Apprentice may file a complaint against the licensee responsible for documenting his hours. However, this should **ONLY** be done after receipt of the Employment Verification Form has been confirmed by his or her employer or agent and; that a reasonable time was allowed for the employer to comply with such request.

➤ An "Employment Verification Form" is enclosed with your initial application package. One form per employer

#### Education:

1. A Specific Form called "Certificate of School Experience" is provided for vocational-technical school attendees. This form is enclosed with your initial application package and may also be available at vocational-technical schools.

### Part III.

#### Examinations:

- Examinations are **OPEN BOOK**, computer generated and two part. Examination scores are stand alone scores, i.e. each part of the examination is independent but necessary. Candidates who fail one part of an examination are only required to retake the part of the examination that they failed. However, all candidates are required to sit and pass each part of the examination for licensure.

#### Master Electrician, Part 1

# of Questions	% Required to Pass	Time Allowed
80	70% (56 questions answered correctly)	240 Minutes

#### Content Outline

Subject Area	# of Items
State Specific Electrical Requirements	4
General Knowledge	6
Services	11
Grounding and Bonding	10
Wiring Methods and Devices	15
Motors	7
Transformers	1
Low-Voltage Distribution	2
Special Occupancies and Equipment	10
Overcurrent Protection	6
Lighting	2
Alarm Systems	6

#### Reference List

All the reference materials listed below were used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge, or general industry practices. Except for Codebooks, you can use later editions of references as they become available. For Code questions, the examination will be based **only** on the edition of the Codebook that is listed.

*Only the following references are allowed in the examination center:*

- National Electrical Code, 2002, National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471, (617)770-3000, [www.nfpa.org](http://www.nfpa.org)
- NFPA 72 - National Fire Alarm Code -, 2002, National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471, (617)770-3000, [www.nfpa.org](http://www.nfpa.org)
- Massachusetts Electrical Code, 527 CMR 12.00 State Amendments to 2002 NEC Board of Fire Prevention Regulations, [www.mass.gov/dfs/osfm/fireprevention/cmr/index.htm](http://www.mass.gov/dfs/osfm/fireprevention/cmr/index.htm)

*Additional Examination questions may be derived from the following reference materials. Please note these reference materials are not allowed in the Examination center.*

- Ugly's Electrical References, 2002, Burleson Distributing Corp., 3501 Oak Forest Drive, Houston, TX 77018, (800)531-1660
- American Electricians' Handbook - 14th edition, 2002, McGraw-Hill, P.O. Box 182605, Columbus, OH 43218-2605, [www.McGraw-hill.com](http://www.McGraw-hill.com)

#### Business and Law (Master Electrician and Systems Contractor Part II)

# of Questions	% Required to Pass	Time Allowed
50	70% (35 questions answered correctly)	120 Minutes

#### Content Outline

Subject Area	# of Items
Massachusetts Licensing	16
Estimating and Bidding	4
Lien Law	1
Financial Management	3
Tax Laws	3
Labor Laws	3
Project Management	3
Contracts	6
Business Organization	2
Risk Management	4
Environmental and Safety	5

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industry practices. Except for Codebooks, you can use later editions of references as they become available. For Code questions, the examination will be based **only** on the edition of the Codebook that is listed.

*Only the following references are allowed in the examination center:*

- Construction Management Guide: Basic Business and Project Management for Contractors, 4th Edition, 2003, NASCLA, POB 14941, Scottsdale, AZ 85267, (480) 948-3363, [www.nascla.org](http://www.nascla.org)
- 237 CMR 12 - 23 Rules and Regulations of the Board of State Examiners of Electricians, State House Book Store, Rm 116, Boston, MA 02133, (617) 727-2834, [www.mass.gov/reg/boards/el/cmr.htm](http://www.mass.gov/reg/boards/el/cmr.htm)
- General Laws of Massachusetts, MGL Chapter 141, Supervision of Electricians, [www.mass.gov/legis/laws/mgl/gl-141-toc.htm](http://www.mass.gov/legis/laws/mgl/gl-141-toc.htm)
- Massachusetts Inspection of Buildings, Inspection and Regulation of, and Licenses for, Buildings, Elevators and Cinematographs, MGL Chapter 143 Sections 3L, 3P and 50, [www.mass.gov/legis/laws/mgl/gl-143-toc.htm](http://www.mass.gov/legis/laws/mgl/gl-143-toc.htm)
- Massachusetts Lien Law, Liens on Buildings and Land, 2003, MGL Chapter 254 Sections 1, 2, 2A, 2B, 4, 5, 8, 11, 13, 15A, 22 and 26, [www.mass.gov/legis/laws/mgl/gl-154-toc.htm](http://www.mass.gov/legis/laws/mgl/gl-154-toc.htm)
- Massachusetts Overtime or Minimum Wage Law, MGL Chapter 151, Minimum Fair Wages, Sections 1, 1A, 1B, 2, 3, 9, 10, 11, 15, 16, 17, 19, 20, 20A and 21, [www.mass.gov/legis/laws/mgl/gl-151-toc.htm](http://www.mass.gov/legis/laws/mgl/gl-151-toc.htm)
- Massachusetts Workers' Compensation law, MGL Chapter 152 Sections 6, 21, 22, 25A, 25C, 26, 27, 27A, 28, 66, 67, 75A and 75B, [www.mass.gov/legis/laws/mgl/gl-152-toc.htm](http://www.mass.gov/legis/laws/mgl/gl-152-toc.htm)
- Massachusetts State Unemployment Law, Simplifying the Employment and Training Law: A Guide for Employers [www.detma.org/pdf/smpbook2.pdf](http://www.detma.org/pdf/smpbook2.pdf)
- Code of Federal Regulations Title 29, Part 1926 (OSHA) 2002, ---OR---PSI, OSHA Excerpts 2003, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954- (888)293-6498, <http://bookstore.gpo.gov> ---OR--- PSI, 3210 E Tropicana, Las Vegas, NV 89121, (see order form at the end of this bulletin).

### Journeyman Electrician, Part 1

# of Questions	% Required to Pass	Time Allowed
70	70% (49 questions answered correctly)	180 Minutes

#### Content Outline

Subject Area	# of Items
General Knowledge	8
Services	11
Grounding and Bonding	7
Wiring Methods and Devices	18
Motors	4
Transformers	1
Low-Voltage Distribution	2

Special Occupancies and Equipment	5
Overcurrent Protection	6
Lighting	2
Alarm Systems	6

#### Reference List

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*Only the following references are allowed in the examination center:*

- National Electrical Code, 2002, National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471, (617)770-3000, [www.nfpa.org](http://www.nfpa.org)
- NFPA 72 - National Fire Alarm Code -, 2002, National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471, (617)770-3000, [www.nfpa.org](http://www.nfpa.org)

### Journeyman Electrician, Part II, Applied portion

# of Questions	% Required to Pass	Time Allowed
30	70% (21 questions answered correctly)	60 Minutes

#### Content Outline

Subject Area	# of Items
Circuit Calculations (Ohm's Law)	5
Electrical Schematics and Plans	5
Materials and Components	6
Troubleshooting and Testing	6
Massachusetts Amendments	6
Licensing Laws and Regulations	2

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- Massachusetts Electrical Code, 527 CMR 12.00 State Amendments to 2002 NEC Board of Fire Prevention Regulations, State of Massachusetts General Laws, [www.mass.gov/dfs/osfm/fireprevention/cmr/index.htm](http://www.mass.gov/dfs/osfm/fireprevention/cmr/index.htm)
- 237 CMR 12.00-23.00 - Rules and Regulations of the Board of State Examiners of Electricians State House Book Store,



Rm 116, Boston, MA 02133, (617) 727-2834,  
[www.mass.gov/reg/boards/el/cmr.htm](http://www.mass.gov/reg/boards/el/cmr.htm)

- MGL Chapter 141, Supervision of Electricians, [www.mass.gov/legis/laws/mgl/gl-141-toc.htm](http://www.mass.gov/legis/laws/mgl/gl-141-toc.htm)
- National Electrical Code, 2002, National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471, (617)770-3000, [www.nfpa.org](http://www.nfpa.org)

***Additional Examination questions may be derived from the following reference materials. Please note these reference materials are not allowed in the Examination center.***

- Ugly's Electrical References, 2002, Burleson Distributing Corp., 3501 Oak Forest Drive, Houston, TX 77018, (800)531-1660
- American Electricians' Handbook - 14th edition, 2002, McGraw-Hill, P.O. Box 182605, Columbus, OH 43218-2605, [www.McGraw-hill.com](http://www.McGraw-hill.com)

### Systems Contractor Part I

# of Questions	% Required to Pass	Time Allowed
70	70% (49 questions answered correctly)	180 Minutes

#### Content Outline

Subject Area	# of Items
General Electric and Electronic Theory and Knowledge	9
NEC Alarm Requirements	15
Intrusion Detection and Notification	15
Fire Detection and Notification	31

#### Reference List

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- National Electrical Code, 2002, National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-9101, (617)770-3000, [www.nfpa.org](http://www.nfpa.org).
- NFPA 72 - National Fire Alarm Code -, 2002, National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471, (617)770-3000, [www.nfpa.org](http://www.nfpa.org)

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- American Electricians' Handbook - 14th edition, 2002, McGraw-Hill, P.O. Box 182605, Columbus, OH 43218-2605, [www.McGraw-hill.com](http://www.McGraw-hill.com)
- Fire Alarm Signaling Systems Handbook, 1994, 2nd edition, Bukowski & O'Laughlin, National Fire Protection Association, 1 Batterymarch, Quincy, MA 02269-9101, 6177703000, [www.nfpa.org](http://www.nfpa.org)
- Certified Alarm Technicians Manual Level 1, 2001, National Training School, 8300 Colesville Rd, Suite 750, Silver Spring, MD 20910, 888-702-1687, [www.alarm.org](http://www.alarm.org)
- Understanding and Servicing Alarm Systems - Third Edition, 0-7506-7206-4, Butterworth-Heinemann (Reed Publishing), 313 Washington Street Newton, MA 02158-1626, [www.bh.com](http://www.bh.com)

### Systems Technician Part I

# of Questions	% Required to Pass	Time Allowed
50	70% (35 questions answered correctly)	120 Minutes

#### Content Outline

Subject Area	# of Items
NEC Alarm Requirements	20
Fire Detection and Notification	30

#### Reference List

All the reference materials listed below were used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge, or general industry practices. **Except for Codebooks**, you can use later editions of references as they become available. For Code questions, the examination will be based **only** on the edition of the Codebook that is listed.

***Only the following references are allowed in the examination center:***

- National Electrical Code, 2002, National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471, (617)770-3000, [www.nfpa.org](http://www.nfpa.org)
- NFPA 72 - National Fire Alarm Code -, 2002, National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471, (617)770-3000, [www.nfpa.org](http://www.nfpa.org)

### Systems Technician Part II (Applied)

# of Questions	% Required to Pass	Time Allowed
30	70% (21 questions answered correctly)	60 Minutes



## Content Outline

Subject Area	# of Items
Circuit Calculations (Ohm's Law)	6
Electrical Schematics and Plans	6
Materials and Components	8
Troubleshooting and Testing	8
Licensing Laws and Regulations	2

## Reference List

All the reference materials listed below were used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge, or general industry practices. **Except for Codebooks**, you can use later editions of references as they become available. For Code questions, the examination will be based **only** on the edition of the Codebook that is listed.

***Only the following references are allowed in the examination center:***

- Massachusetts Electrical Code, 527 CMR 12.00 State Amendments to 2002 NEC Board of Fire Prevention Regulations, State of Massachusetts General Laws, [www.mass.gov/dfs/osfm/fireprevention/cmr/index.htm](http://www.mass.gov/dfs/osfm/fireprevention/cmr/index.htm)
- 237 CMR 12.00-23.00 - Rules and Regulations of the Board of State Examiners of Electricians, State House Book Store, Rm 116, Boston, MA 02133, (617) 727-2834, [www.mass.gov/reg/boards/el/cmr.htm](http://www.mass.gov/reg/boards/el/cmr.htm)
- National Electrical Code, 2002, National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471, (617)770-3000, [www.nfpa.org](http://www.nfpa.org)
- MGL Chapter 141, Supervision of Electricians, [www.mass.gov/legis/laws/mgl/gl-141-toc.htm](http://www.mass.gov/legis/laws/mgl/gl-141-toc.htm)

***Additional Examination questions may be derived from the following reference materials. Please note these reference materials are not allowed in the Examination center.***

- Ugly's Electrical References, 2002, Burleson Distributing Corp., 3501 Oak Forest Drive, Houston, TX 77018, (800)531-1660
- American Electricians' Handbook - 14th edition, 2002, McGraw-Hill, P.O. Box 182605, Columbus, OH 43218-2605, [www.McGraw-hill.com](http://www.McGraw-hill.com)
- Fire Alarm Signaling Systems Handbook, 1994, 2nd edition, Bukowski & O'Laughlin, National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471, (617)770-3000, [www.nfpa.org](http://www.nfpa.org)

- Certified Alarm Technicians Manual Level 1, 2001, National Training School, 8300 Colesville Rd, Suite 750, Silver Spring, MD 20910, (888)702-1687, [www.alarm.org](http://www.alarm.org)
- Understanding and Servicing Alarm Systems - Third Edition, 0-7506-7206-4, Butterworth-Heinemann (Reed Publishing), 313 Washington Street Newton, MA 02158-1626, [www.bh.com](http://www.bh.com)

## Part IV.

### Penalties and Refund Policies for all Examinations:

1. **Failure to appear-** Any candidate who fails to appear for an examination shall forfeit **ALL** fees paid in connection with that examination.
2. **Failing Examination-** Any candidate who fails an examination cannot sit for re-examination for a period of thirty (30) days from the date of last examination or for a time period as specified by the Board.
3. **Rescheduling-** You may cancel and reschedule an examination appointment without forfeiting your fee if your cancellation notice is received 2 days before the scheduled examination date.

**Note: A voice mail message is not an acceptable form of cancellation. Please use the internet, automated telephone system, or call PSI and speak to a Customer Service Representative.**

4. **Illness-** If you are too ill to take an examination on the scheduled date, you may submit a letter from your doctor or hospital substantiating your illness (on their letter head) or any other documentation that PSI and or the Board could use in determining your illness.
5. **Weather-** In the event of severe weather, PSI reserves the right to cancel any and all scheduled examinations. In such event PSI will attempt to contact each applicant that day via telephone to reschedule your examination at your earliest convenience. If they are unable to contact you at that time, they will send a written notice to reschedule the next business day.

## Part V.

### Required Renewal of Application Forms:

All applicants shall update their applications after 30-days if the applicant has not sat for and passed each part of his or her examination or has been rescheduled for an examination during said 30-day period and has not sat through an examination. This application must be filled out completely and legibly and signed under pains and penalties of perjury.



Part VI.

**First Time Candidate Fees:**

Applicants must pay the fee by cashier's check or money order only, payable to PSI.

	*Total PSI Fee Per Candidate	**PSI Application Processing Fee	Examination Administration Fee			***MA License Application Processing Fee	****MA License Fee
			Trade	Business	Practical		
Master Electrician	\$402	\$75	\$80	\$55		\$57	\$135
Journeyman Electrician	\$312	\$60	\$80		\$55	\$27	\$90
Systems Contractor	\$402	\$75	\$80	\$55		\$57	\$135
Systems Technician	\$312	\$60	\$80		\$55	\$27	\$90

\*Fee is a sum of all fees broken down at right

\*\*PSI Application Processing Fee is good for one year. If you do not test within one year, you must pay this fee again.

\*\*\*MA License Application Processing Fee is non-refundable.

\*\*\*\*MA License Fee - If you do not pass the examination your MA license Fee will be refunded automatically after one year. However, you may request a refund at any time during the one-year period. Contact PSI for details.

**Re-exam Candidate Fees:**

Applicants for reexamination must pay the fee by cashier's check or money order only, payable to PSI.

	*Total PSI Re-exam Fee Per Candidate	Re-examination Fee		
		Trade	Business	Practical
Master Electrician	\$135	\$80	\$55	
Journeyman Electrician	\$135	\$80		\$55
Systems Contractor	\$135	\$80	\$55	
Systems Technician	\$135	\$80		\$55

\* Fee is a sum of all fees broken down at right.

Re-exam Fees are non-refundable.

All fees and completed forms shall be sent to:

PSI Examination Services

Attn: MAEL

3210 E Tropicana Ave

Las Vegas, NV 89121





Commonwealth of Massachusetts

## Division of Professional Licensure

239 Causeway Street • Boston, Massachusetts 02114

[www.mass.gov/reg/boards/el](http://www.mass.gov/reg/boards/el)

BOARD OF STATE EXAMINERS OF ELECTRICIANS

**RICHARD A. FREDETTE**

EXECUTIVE DIRECTOR

Completed by Vendor/Board

Ex. Date \_\_\_\_\_

Ex. Result \_\_\_\_\_

Cert. Date \_\_\_\_\_

Cert. No. \_\_\_\_\_

## Application for Examination

Applying for	Check One	Check if Re-exam	List current Massachusetts Journeyman/Systems Technician Number	Verified by Board/Vendor
Master Electrician exam	<input type="checkbox"/>	<input type="checkbox"/>		
Systems Contractor exam	<input type="checkbox"/>	<input type="checkbox"/>		
Journeyman Electrician exam	<input type="checkbox"/>	<input type="checkbox"/>		
Systems Technician exam	<input type="checkbox"/>	<input type="checkbox"/>		

Please Print or Type. This is an official Document

Date of Photo \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Social Security Number (required)		Date of Birth		Maiden /Other names	
Last Name		First Name		Middle Name	Generation
Residence (street Address)					
City			State		Zip Code
Day time Phone Number ( )	Evening Phone Number ( )		Email Address		

Pursuant to MGL. c 62C § 49A, the Division of Professional Licensure is required to obtain your Social Security number and forward it to the Department of Revenue. The Department of Revenue will use your Social Security number to ascertain whether you are in compliance with the tax laws of the Commonwealth.

Your Application May Be **RETURNED** if you fail to answer any of the questions below:

- Are you applying for renewal for licensure by reexamination? Yes ☐ No ☐
- Has a licensing/certification board located in the United States or any country or foreign jurisdiction taken any disciplinary action against your license(s)? Yes ☐ No ☐  
If yes, please state the details (use a separate sheet if necessary): \_\_\_\_\_
- Are you the subject of pending disciplinary actions by a licensing/certification board located in the United States or any country or foreign jurisdiction? Yes ☐ No ☐  
If yes, Please state the details (use a separate sheet if necessary): \_\_\_\_\_
- Have you ever voluntarily surrendered or resigned a professional license to a licensing/certification board in the United States or any country or foreign jurisdiction? Yes ☐ No ☐  
If yes, please state the details (use a separate sheet if necessary): \_\_\_\_\_



5. Have you ever applied for and been denied a professional license in the United States or any country of foreign jurisdiction?  
Yes ☐ No ☐

If yes, please state the details (use a separate sheet if necessary): \_\_\_\_\_

6. Have you ever admitted to or been convicted of a felony or misdemeanor in the United States or any country or foreign jurisdiction? Yes ☐ No ☐

If yes, please attach necessary documentation of case outcome, resolution and disciplinary status (if any). In some cases it may be advantageous to submit a sealed CORI.

Current Employer/Company	Employer Address	MO/DAY/YR Starting Date	Employed Years Months

**Please sign below in acknowledgement of the following statements:**

- I understand that I have the right to review my examination questions and that such request shall be made in writing to PSI within 30-days of the date of examination
- I understand that if PSI reviewed my examination questions but maintained their failing score and I still disagree with their findings I may file an appeal before the Board
- I understand that I have the right to appeal PSI's decisions and that my appeal shall be made in writing to the Board of State Examiners of Electricians, within 30-days of the date of my rejection notice from PSI. In my appeal I must state the items/questions that are to be reviewed and failure to make such a request within the time allotted may jeopardize my right to an appeal
- I understand that if I need a copy of the Review of an Examination Score Notice in addition to the one previously given to me, such a request must be made within 30-days of the date of examination. Any failure to make such a request (documented) within the time allotted may jeopardize my right to review my examination score for a second time
- I understand that applicants who receive a rejection of application notice may file an appeal before the Board. Said appeal must be filed in writing, within 30-days from the date of Rejection of Application Notice and failure to make such a request within the time allotted may jeopardize my right to an appeal
- I certify, under the pains and penalties of perjury, that the information I have provided pursuant to this application for licensure is truthful and accurate. I understand that the failure to provide accurate information may be grounds for the Massachusetts Board of State Examiners of Electricians to deny my right to sit as a candidate or to suspend or revoke a license issued to me in accordance with Massachusetts Law. I further attest that, pursuant to M.G.L.c.62C, s. 49A, to the best of my knowledge and belief, I have filed all Mass tax returns and paid all Mass taxes required by law.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

THE FOLLOWING IS TO BE COMPLETED IN THE PRESENCE OF A NOTARY.

\_\_\_\_\_ being duly sworn says that he/she is the person who is referred to in this application for certificate as licensed Journeyman Electrician, Master Electrician, Systems Technician or Systems Contractor, in the State of Massachusetts; that the statements herein contained are strictly true in every respect and that he/she has complied with all requirements of law.

Sworn to before me this day of \_\_\_\_\_ 20\_\_\_\_\_  
(Date)

(Seal)/sign \_\_\_\_\_  
(Person Administering Oath)

\_\_\_\_\_  
(Signature of Applicant)

\_\_\_\_\_  
(Commission Expires)

**Money Order or Cashier's Check only.**

Credit card (MasterCard or VISA) payment accepted for phone or fax review/reexam registrations only. ☐MC ☐Visa

Card No: \_\_\_\_\_ Exp. Date \_\_\_\_\_

Cardholder Name (Print): \_\_\_\_\_ Signature \_\_\_\_\_

I am enclosing a Special Arrangement Request letter and required documentation. ☐ Yes ☐ No

Complete and forward this registration form with the applicable examination fee to:

PSI Examination Services \* ATTN: Examination Registration MA EL

3210 E Tropicana Ave \* Las Vegas, NV 89121

Fax (818) 247-3853 \* (800) 733-9267 \* TTY (800) 735-2929



## Massachusetts Order Form for Reference Material

ITEM	PRICE	QUANTITY	AMOUNT
Code of Federal Regulations - 29 CFR Part 1926 Selections as of 2003 by PSI	\$19.50	_____	_____
Shipping and Handling (\$7.50) <i>(Unless you had provided a FedEx Account #, all orders are shipped by UPS Ground - please allow up to 2 weeks for delivery)</i>			_____
TOTAL			=====

Please send this form along with payment (Money Order / Cashier's Check / Company Check / Mastercard / Visa. Personal Checks not accepted) to:

**PSI Examination Services**  
**3210 E Tropicana Ave \* Las Vegas, NV 89121**  
**Fax (702) 932-2666**  
**ATTN: SHIPPING DEPARTMENT**

*NOTE: You may fax your Order Form if you are paying with MasterCard or VISA.  
Fill out the credit card information below:*

☐ MC   ☐ VISA   Account No. \_\_\_\_\_   Expiration Date \_\_\_\_\_

Name on Card (Print) \_\_\_\_\_

Signature \_\_\_\_\_

INDICATE BELOW THE ADDRESS WHERE YOU WOULD LIKE YOUR ORDER SENT TO:  
*(UPS and FedEx does NOT deliver to PO Box addresses)*

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_ CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

PHONE NUMBER: \_\_\_\_\_

FEDEX ACCOUNT #: \_\_\_\_\_

*To expedite delivery of your ordered materials, you may include a FedEx or UPS Account number, and PSI will send out your materials via FedEx or UPS using the account number you had provided. Please note however, that Shipping and Handling Costs will still apply.*

